

**REMARKS**

Claims 8-16 are pending in the present application. Claims 1-7 have been canceled. Claims 8-16 have been presented herewith.

**Priority Under 35 U.S.C. 119**

Applicant notes the Examiner's acknowledgment of the Claim for Priority under 35 U.S.C. 119, and receipt of the certified copy of the priority document.

**Drawings**

The drawings have been objected to under 37 C.F.R. 1.83(b) as allegedly being incomplete. The Examiner has asserted that the drawings are incomplete because they do not illustrate a method as described in claims 5-7. This objection to the drawings, insofar as it may pertain to the presently pending claims, is traversed for the following reasons.

Claims 14-16 as presented herewith correspond to an output stopping method of a signal generator. Applicant respectfully submits that the features of claims 14-16 may be construed as illustrated in connection with either of Figs. 1 and 8 in the alternative, as taken together with Figs. 6 and 7. Particularly, Fig. 6 shows a stable oscillating state and an output stopping state, wherein the frequency of the signal is maintained as the signal transitions during the output stopping state to the stopped state. The Z plane, the unit circle and the poles are shown in Fig. 7. Applicant respectfully submits that one

of ordinary skill would readily understand that the features of claims 14-16 are illustrated in connection with the above noted figures, and that the drawings are thus in compliance with 37 C.F.R. 1.83(b). The Examiner is therefore respectfully requested to withdraw this objection to the drawings for at least these reasons.

#### **Claim Rejections-35 U.S.C. 112**

Claims 1-7 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 8-16 as presented herewith conform with current U.S. practice, without grammatical and idiomatic errors, and thus are in compliance with 35 U.S.C. 112, second paragraph. The Examiner is thus respectfully requested to withdraw this rejection, insofar as it may pertain to the pending claims, for at least these reasons.

#### **Claim Rejections-35 U.S.C. 102**

Claims 2 and 5 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Lee et al. reference (U.S. Patent Application Publication No. 2002/0021749). This rejection, insofar as it may pertain to the presently pending claims, is traversed for the following reasons.

The signal generator of claim 8 includes in combination among other features that the control unit "changes the coefficients to predetermined values during an output stopping state to stop the output signal, so that a frequency of the output signal is maintained as the output signal transitions to the stopped state".

The Examiner has asserted that lines 4-6 in paragraph [0037] of the Lee et al. reference discloses a predetermined value that is selected so that output of an output signal is stopped while maintaining a frequency of the output signal. However, lines 4-6 in paragraph [0037] of the Lee et al. reference merely states: "The coefficients  $\{\alpha_1\}$  and  $\{\beta_1\}$  are selected among the coefficient sets of the designed IIR filters". The Lee et al. reference as specifically relied upon by the Examiner does not disclose or even remotely suggest changing coefficients to predetermined values during an output stopping state to stop the output signal, so that a frequency of the output signal is maintained as the output signal transitions to the stopped state. Frequency and an output stopping state are not mentioned in the passage of the Lee et al. reference as relied upon. Applicant therefore respectfully submits that the signal generator of claim 8 distinguishes over the Lee et al. reference as relied upon, and that this rejection, insofar as it may pertain to claims 8-10, is improper for at least these reasons.

The signal generator of claim 11 includes in combination among other features that the selector "changes the coefficients to predetermined values during an output stopping state to stop the output signal, so that a frequency of the output signal is maintained as the output signal transitions to the stopped state".

Applicant respectfully submits that lines 4-6 in paragraph [0037] of the Lee et al. reference does not disclose or even remotely suggest the above noted features of claim 11. Applicant therefore respectfully submits that the signal generator of claim 11 distinguishes over the Lee et al. reference as relied upon, and that this rejection, insofar

as it may pertain to claims 11-13, is improper for at least these reasons.

The output stopping method of a signal generator of claim 14 includes in combination among other features "changing the coefficients to predetermined values during an output stopping state to stop output of the desired signal, so that a frequency of the desired signal is maintained as the desired signal transitions to the stopped state".

Applicant respectfully submits that the Lee et al. reference as specifically relied upon does not disclose or remotely suggest these features. Applicant therefore respectfully submits that the output stopping method of claim 14 distinguishes over the Lee et al. reference as relied upon, and that this rejection, insofar as it may pertain to claims 14-16, is improper for at least these reasons.

Claim 1 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Chen reference (U.S. Patent No. 6,256,383) in view of the Lee et al. reference. This rejection, insofar as it may pertain to the presently pending claims, is traversed for the following reasons.

The Examiner has alleged that column 8, lines 41-45 of the Chen reference teaches changing coefficients and stopping an output signal while maintaining a frequency of the output signal. The Examiner has apparently taken the position that these features are equivalent or met by the coefficients converging towards zero energy error.

Applicant respectfully submits that column 8, lines 41-45 of the Chen reference

does not disclose or even remotely suggest changing coefficients so that a frequency of an output signal is maintained as the output signal transitions to a stopped state. This particular portion of the Chen reference merely discloses a gradient adaptation algorithm so as to move in the direction of minimizing error signal energy and eventually realizing zero error energy. The frequency of an output signal during an output stopping state is not disclosed or considered. Applicant therefore respectfully submits that this rejection, insofar as it may pertain to currently pending claims 8-16, is improper for at least these reasons.

Claims 3/1 and 4/3/1 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Chen reference and the Lee et al. reference, in further view of the Eran et al. reference (U.S. Patent No. 6,862,326). Claims 3/2, 4/3/2, 6 and 7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Lee et al. reference in view of the Eran et al. reference. Applicant respectfully submits that the Eran et al. reference as secondarily relied upon does not overcome the above noted deficiencies of the previously relied upon prior art. Applicant therefore respectfully submits that these rejections, insofar as they may pertain to the presently pending claims, are improper for at least these reasons.

### **Conclusion**

The Examiner is respectfully requested to reconsider and withdraw the corresponding objection and rejections, and to pass the claims of the present

application to issue, for at least the above reasons.

In the event that there are any outstanding matters remaining in the present application, please contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (571) 283-0720 in the Washington, D.C. area, to discuss these matters.

Pursuant to the provisions of 37 C.F.R. 1.17 and 1.136(a), the Applicant hereby petitions for an extension of one (1) month to May 10, 2007, for the period in which to file a response to the outstanding Office Action. The required fee of \$120.00 should be charged to Deposit Account No. 50-0238.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment for any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0238.

Respectfully submitted,

VOLENTINE & WHITT, P.L.L.C.

A handwritten signature in black ink, appearing to read 'Andrew J. Telesz, Jr.', with a stylized flourish at the end.

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